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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/489,652	01/24/2000	William G. Burroughs	KUC-718US	6089
46900 7590 05/22/2007 MENDELSON & ASSOCIATES, P.C. 1500 JOHN F. KENNEDY BLVD., SUITE 405 PHILADELPHIA, PA 19102			EXAMINER TANG, KENNETH	
			ART UNIT 2195	PAPER NUMBER
			MAIL DATE 05/22/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/489,652

Applicant(s)

BURROUGHS ET AL.

Examiner

Kenneth Tang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27, 29-38 and 40-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 53-58 is/are allowed.
- 6) ☒ Claim(s) 27, 29-31, 34-38, 40-42, and 45-52 is/are rejected.
- 7) ☒ Claim(s) 32, 33, 43 and 44 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. This final action is in response to the Remarks filed on 2/22/07. Applicant's arguments have been fully considered but are moot in view of the new grounds of rejections.
2. Claims 27, 29-38, and 40-58 are presented for Examination.

Allowable Subject Matter

3. Claims 32-33 and 43-44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
4. Newly added claims 53-58 are allowed because the independent claims include the allowable subject matter as indicated in claims 32-33 and 43-44.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 27, 29-31, 34-38, 40-42, 45-52 are rejected under 35 U.S.C. 103(a) as being unpatentable by Dokic et al. (hereinafter Dokic) (US 6,009,389) in view of Hughes-Hartogs (US 6,111,935).**

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4. As to claim 27, Dokic teaches in a system comprising a first processor and one or more other processors, a method for applying one or more interrupt signals to the one or more other processors, the method comprising:

(a) generating, in the first processor (DSPA or DSPB) (Fig. 2, 200a or 200b), a data word (the data transmitted from the signal) having two or more data bits, wherein each data bit has either a first bit or a second bit value (1 or 0) (col. 5, lines 4-30 and 60-67);

(b) transmitting the data word (Fig. 2, items 206a and 206b) from a data port of the first processor to a signal unit external to the first processor and the one or more other processors (the host, etc) (col. 4, lines 34-47, col. 5, lines 60-67, col. 12, lines 59-67, Fig. 3, items 1300-1305);
Dokic is silent in:

(c) converting, in the signal unit, the data word into two or more interrupt signals, wherein each analyzed data bit in the data word having a specified bit value corresponds to a different interrupt word (col. 5, lines 4-30, Fig. 5, items 5601-5605, etc.); and

6. However, Hughes-Hartogs teaches a communications system having a signal splitter that converts a single signal (of words) and converts or splits it to a plurality of signals (or a spectrum of signals) with an analyzer to analyze the bit values of the signals (col. 4, lines 41-58, Fig. 3, items 61, 57, 90). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Dokic to include the signal splitter of Hughes-Hartogs because this allows sampling and analysis of the signal to determine characteristics of the said signal, etc. (col. 4, lines 41-58).

7. Dokic also teaches:

(d) transmitting each interrupt signal from the signal unit to an interrupt port of an other

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processor (col. 4, lines 34-47, col. 5, lines 60-67, col. 12, lines 59-67).

6. As to claim 29, Dokic teaches wherein at least two interrupt signals are transmitted to two different ports of a single other processor (Fig. 2, items 206a, 206b, 207a, 207b).

7. As to claim 30, Dokic does not teach wherein at least two interrupt signals are transmitted to interrupt ports of at least two different other processors (Fig. 2, items 206a, 206b, 207a, 207b).

8. As to claim 31, Dokic teaches wherein the signal unit detects a transition in each data bit of the data word over time to determine when to generate a corresponding interrupt signal (based on rising/falling edges) (col. 7, lines 16-25).

11. As to claim 34, Dokic teaches wherein each interrupt signal is transmitted from the signal unit to a corresponding interrupt port of a corresponding other processor via a dedicated line (I/O Bus A or B, Fig. 2, items 206a or 206b).

12. As to claim 35, Dokic teaches wherein the data word is transmitted from the first processor to the signal unit via a shared data bus (Fig. 2, 206a, 206b, Fig. 3, 206a, 206b).

13. As to claim 36, it is rejected for the same reason as stated in the rejection of claim 27. Dokic teaches two-way communication between DSPA and DSPB (Fig. 2, 200a, 200b, 206a, 206b).

14. As to claim 37, Dokic teaches wherein at least one other interrupt signal is transmitted from the other signal unit to an interrupt port of at least one other processor (Fig. 2, 206a, 206b, Fig. 3, 206a, 206b).

15. As to claims 38, 40-42 and 45-48, they are rejected for the same reasons as stated in the rejections of claims 27, 29-31 and 34-37.

16. As to claims 49-50, they are rejected for the same reasons as stated in the rejections of claims 1 and 35.

17. As to claim 51, it is rejected for the same reasons as stated in the rejection of claim 1.

18. As to claim 52, it is rejected for the same reasons as stated in the rejections of claims 27, 34-35 and 38. In addition, Dokic teaches detecting a transition in each data bit of the data signal over time to determine when to generate a corresponding interrupt signal (based on rising/falling edges) (col. 7, lines 16-25).

Response to Arguments

9. Applicant's arguments have been fully considered but are moot in view of the new grounds of rejections.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (571) 272-3772. The examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kt
5/10/07


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